Assignment 1: Programming with Web APIs

The project is a mashup-based web page concentrating on music. It is divided into 4 sections and each of the sections has different subjects such as music activities, musicians and tracks. The project is mainly a information collection and display web page like Douban.

I use *Java* as back-end language. The project is deployed in Tomcat. In the front end, I use several libary such as *animate.css*, *fullpage.css* and *kite.css*. The photographs are come from *Usplash*. The fonts are from *Google Fonts*. The returned data from web APIs are in formats of both JSON and XML. I use three different way to parse the data, including *dom4j*, *Gson* and *JQuery*.

Section 1

Show the most popular tracks from indie musicians in recent time, include the track cover, track name, musician name and publish time.

Web API: *Fanburst*

Data structure: JSON

The way to parse data: Use Gson to transform JSON data into JavaBean.

Section 2

Show the latest music activity like concert, live show, and outdoor music festival. The information of activity name, time, address and description are displayed here.

Web API: *Eventful*

Data structure: XML

The way to parse data: dom4j

Section 3

Show the most popular artists. The photo and name are displayed.

Web API: *Last.fm*

Data structure: XML

The way to parse data: dom4j

Section 4

Search the information of artist including photo, name, genres and popularity index.

Web API: *Spotify*

Data structure: JSON

The way to parse data: Use JQuery to transform the JSON data into javascript object. Then the result is dynamically displayed by *AJAX*.

Configuration and deployment

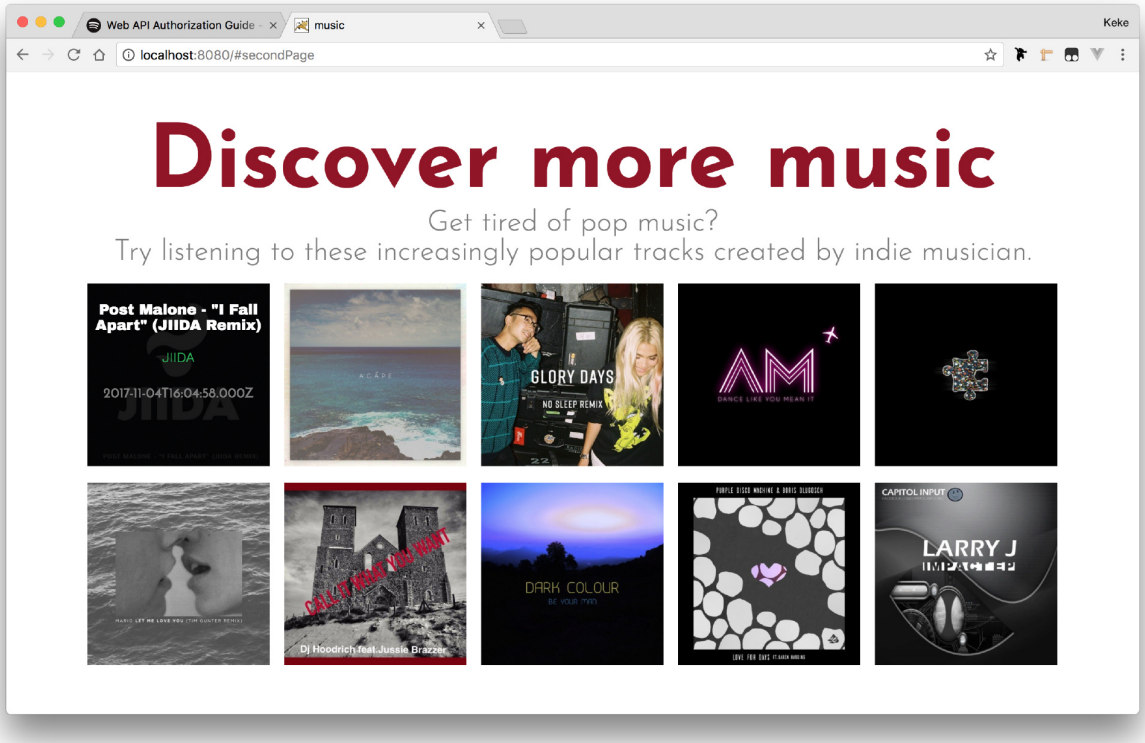
- JDK version 1.8.0
- Tomcat version 8.5.23

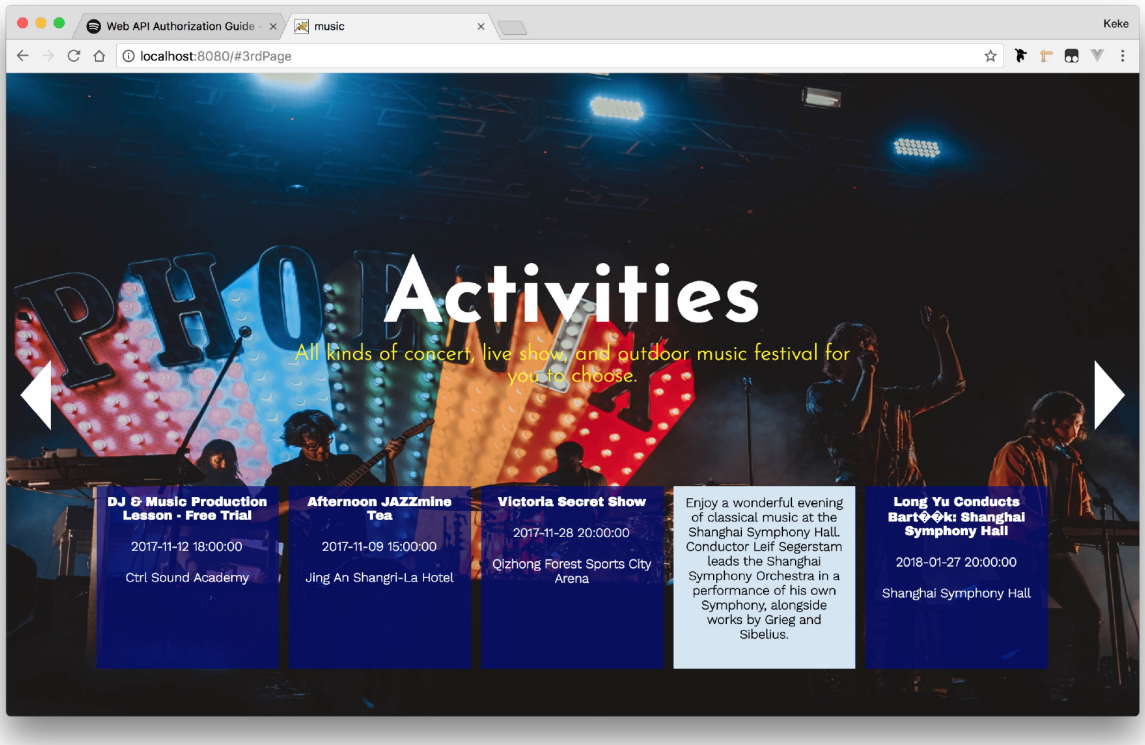
- Put the jar file of dom4j and Gson under the path ***Tomcat / lib /*** .
- There is time limit of using the token of Spotify web API. So the search function may be invalid because of the overtime token.

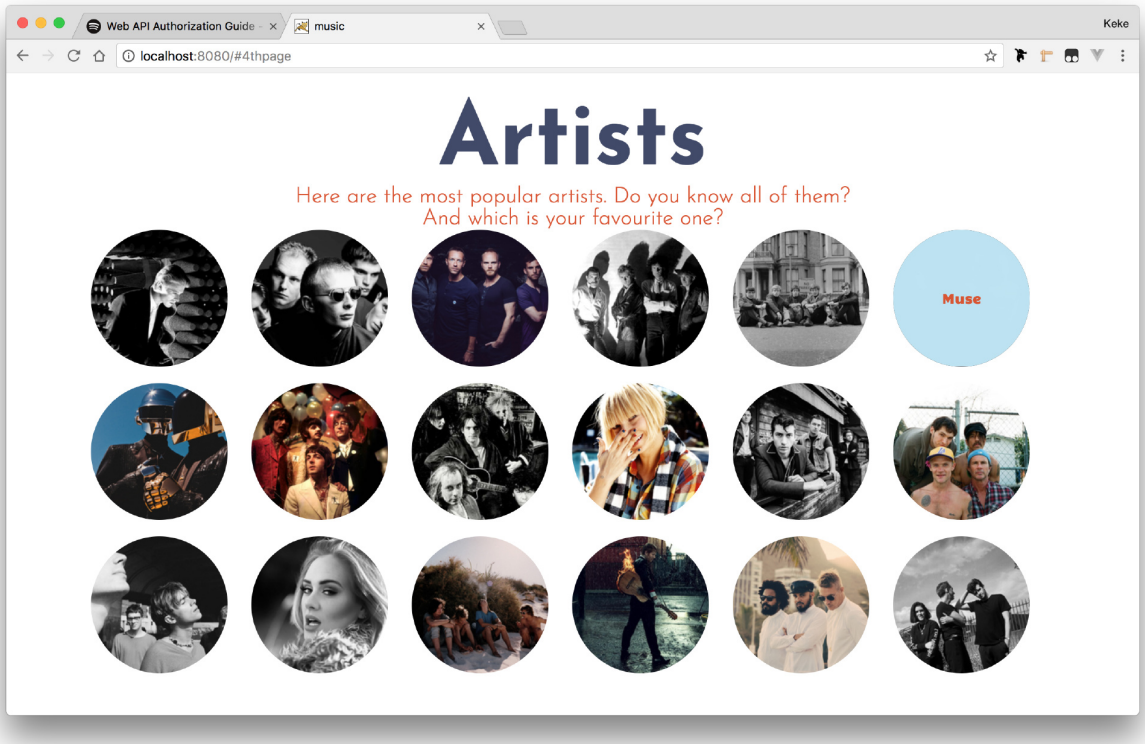
Demo video

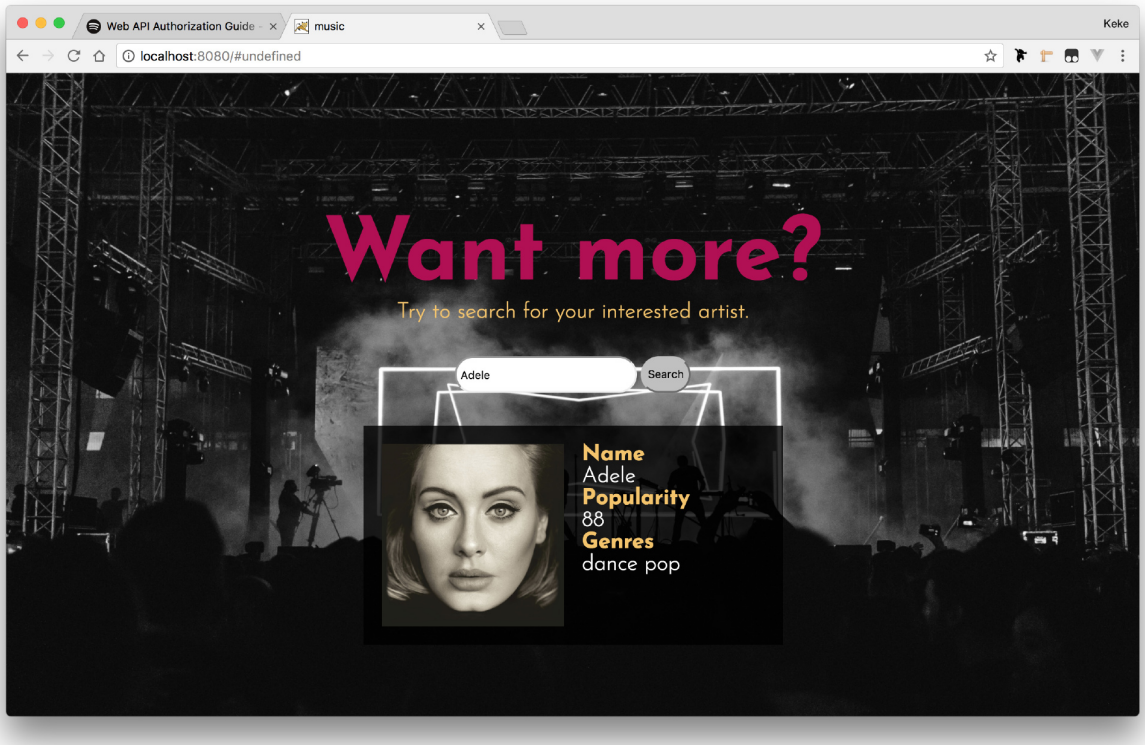
[Click here to watch!]

Screenshot




Web API Authorization Guide
music
Keke
localhost:8080/#3rdPage
Activities
All kinds of concert, live show, and outdoor music festival for you to choose.
DJ & Music Production Lesson - Free Trial
2017-11-12 18:00:00
Ctrl Sound Academy
Afternoon JAZZmine Tea
2017-11-09 15:00:00
Jing An Shangri-La Hotel
Victoria Secret Show
2017-11-28 20:00:00
Qizhong Forest Sports City Arena
Enjoy a wonderful evening of classical music at the Shanghai Symphony Hall. Conductor Leif Segerstam leads the Shanghai Symphony Orchestra in a performance of his own Symphony, alongside works by Grieg and Sibelius.
Long Yu Conducts Bart??k: Shanghai Symphony Hall
2018-01-27 20:00:00
Shanghai Symphony Hall


Web API Authorization Guide
music
Keke
localhost:8080/#4thpage
Artists
Here are the most popular artists. Do you know all of them?
And which is your favourite one?
Muse


Web API Authorization Guide
music
Keke
localhost:8080/#undefined
Want more?
Try to search for your interested artist.
Adele
Search
Name
Adele
Popularity
88
Genres
dance pop